AMENDMENTS TO THE CLAIMS

A marked-up version of the claims that will be pending following entry of the present amendments showing the amendments made herein follows. Matter that has been deleted from the claims is indicated by strikethrough and matter that has been added is indicated by underlining.

1. (Currently Amended) A composition comprising a cell culture of immature animal cells, including liver, pancreas, gut, lung, or bone marrow cells, which contains at least a population of hepatocyte precursor cells capable of differentiating into ~~hepatocytes~~ biliary cells.

2. (Currently Amended) The composition of claim 1, wherein the hepatocyte precursor cells are capable of differentiating into ~~hepatocytes~~ biliary cells in a serum-free culture medium comprising extracellular matrix and liver stromal cells.

3. (Original) The composition of claim 2, wherein the extracellular matrix is formed from a material comprising collagen, fibronectin, laminin or combinations thereof.

4. (Original) The composition of claim 3, wherein the collagen is type IV collagen.

5. (Original) The composition of claim 3, wherein the collagen is used alone or in combination with proteoglycans, or tissue extracts enriched in extracellular matrix materials.

6. (Original) The composition of claim 2, wherein the extra cellular matrix is coated upon a porous solid support.

7. (Original) The composition of claim 6, wherein the solid support comprises Millicell membrane support, filters, sponges, and hollow fiber systems.

8. (Original) The composition of claim 2, wherein the liver stromal cells are embryonic liver stromal cells.

9. (Original) The composition of claim 2, wherein the liver stromal cells are fetal liver stromal cells.

10. (Original) The composition of claim 1 which comprises a growth factor.

11. (Currently Amended) Genetically engineered hepatocyte precursor cells obtained by genetically engineering expanded hepatocytes precursor cells derived from culturing immature animal cells that contain at least a population of hepatocyte precursor cells capable of differentiating into ~~hepatocytes~~ biliary cells.

12. (Currently Amended) The genetically engineered hepatocyte precursor cells of claim 11, wherein the hepatocyte precursor cells are differentiated into ~~hepatocytes~~ biliary cells in a serum-free culture medium comprising extracellular matrix and liver stromal cells.

13. (Original) The genetically engineered hepatocyte precursor cells of claim 11, wherein the immature animal cells are selected from the group consisting of liver, pancreas, gut, lung, or bone marrow cells.

14. (Currently Amended) Genetically engineered hepatocyte precursor cells obtained by culturing immature animal cells including liver, pancreas, gut, lung, or bone marrow cells, that contain at least a population of hepatocyte precursor cells capable of differentiating into ~~hepatocytes~~ biliary cells in a serum-free culture medium, that comprises extracellular matrix and liver stromal cells to provide expanded hepatocyte precursor cells and genetically engineering the expanded hepatocyte precursor cells.

15. (Original) The genetically engineered hepatocyte precursor cells of claim 14, wherein the liver stromal cells are embryonic liver stromal cells or fetal liver stromal cells.

16. (Original) The genetically engineered hepatocyte precursor cells of claim 11, wherein the genetic engineering comprises *ex vivo* genetic modification of the hepatocyte precursors.

17. (Original) The genetically engineered hepatocyte precursor cells of claim 16, wherein *ex vivo* genetic modification comprises obtaining hepatocyte precursor cells from a human or non-human subject, genetically modifying the hepatocyte precursor and transferring the genetically modified hepatocyte precursor cells to the same or a different human or non-human subject.

18. (Original) The genetically engineered hepatocyte precursor cells of claim 17, wherein said transferring comprises transplanting or grafting.

19. (Original) The genetically engineered hepatocyte precursor cells of claim 11, wherein genetically engineering comprises transducing hepatocyte precursor cells with a retroviral vector comprising a genetic material that encodes polypeptides or protein of interest and/or a dominant selectable marker.

20. (Original) The genetically engineered hepatocyte precursor cells of claim 11, wherein the genetic material is under the control of retroviral vector regulatory elements and/or regulatory elements of genes normally expressed in the liver.